

Response to Arguments

Receipt of the translation filed 3-7-2008 of applicant's Foreign Priority document is acknowledged.

Applicant has argued that Kozicki et al is not prior art for the portions relied upon because Kozicki et al is a continuation in part.

Applicant's arguments with respect to claims 27,31-34,41-43,48-50, and 54 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 27,31-34,41-43,48-50, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kozicki et al (US 2003/0137869A1) in view of Li et al (US 2003/018504A1).

Kozicki et al discloses a method of forming memory devices(paragraph 0011). The device includes an ion conductor between two electrodes(paragraph 0015). A metal such as silver is dissolved in the ion conductor by photodissolution(paragraph 0075) or by thermal dissolution or both(paragraphs 0081 and 0082). The electrodes may be doped polysilicon or metal(paragraph 0043). The ion conductor is a chalconide such as Ge-Se(paragraphs 0063 and 0108). Phase separated regions form when a voltage is applied such as in the write process(paragaphs 0064 and 0065). The core material is amorphous as Kozicki et al disclose the material is SeGe glass and glass is amorphous(paragraph 0076). During the application of a voltage electrodeposit phase of metal forms(paragraph 0085). Excess silver remains after the write process(paragraph 0096).

Kozicki et al is silent with respect to supersaturated state.

Li et al discloses in a process for forming a chalcogenide memory device that the ion conductor can be oversaturated with metal(paragraph 0032) which is a supersaturated state.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the method taught by Kozicki et al with the formation of the oversaturated state taught by Li et al because Kozicki et al disclose that there is excess silver in the ion conductor and that this remains after the write process.

***Allowable Subject Matter***

Claims 28-30,35-40,44-47,51-53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not teach or suggest the crystallinity nor the recited transformations recited in the allowable claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caridad M. Everhart whose telephone number is 571-272-1892. The examiner can normally be reached on Monday through Fridays 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, B. Baumeister can be reached on 571-272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Caridad Everhart/

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Primary Examiner

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